Name of Organization: Ecology Center

Type of Organization: Other

Contact Information: Mr. Michael Garfield

Ecology Center

117 N. Division Street

Ann Arbor MI 48104

Phone: (734) 663 - 2400 **Extension:** 104

Fax: (734) 663 - 2414

E-Mail: michaelg@ecocenter.org

Project Title: Pollution Prevention in the Health Care Industry

Project Category: Pollution Prevention and Reduction - BNS

Rank by Organization (if applicable): 0

Total Funding Requested ($): 51,500 **Project Duration:** 1 Years

Abstract:

This project will promote pollution prevention practices in the health care sector to reduce the use and release of Binational Toxics Strategy (BTS) Level I and Level II pollutants, particularly mercury and dioxin. The project will support the work of the BTS workgroups by developing successful case studies in a materials-based approach to achieving virtual elimination. We propose to hold a seminar on pollution prevention in the health care industry, with a focus on purchasing initiatives. In addition, the project will conduct a series of technical assistance activities with individual hospitals throughout the state of Michigan to encourage pollution prevention. We will emphasize the top of the pollution prevention hierarchy, particularly product substitution and reduction in the volume and the toxicity of waste streams generated. The involvement of neighborhood, environmental and citizen groups will be a vital part of this project. This effort will be launched in conjunction with the Michigan Health and Hospital Association, their Healthy Hospitals Task Force, and Detroiters Working for Environmental Justice.

Geographic Areas Affected by the Project

States:

- [ ] Illinois
- [ ] Indiana
- [x] Michigan
- [ ] Minnesota
- [ ] New York
- [ ] Pennsylvania
- [ ] Wisconsin
- [ ] Ohio

Lakes:

- [ ] Superior
- [ ] Huron
- [ ] Michigan
- [ ] Erie
- [ ] Ontario
- [x] All Lakes

Geographic Initiatives:

- [ ] Greater Chicago
- [ ] NE Ohio
- [ ] NW Indiana
- [x] SE Michigan
- [ ] Lake St. Clair

Primary Affected Area of Concern: All AOCs

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

Michigan hospitals generate 25,000 tons/year of medical waste, according to a recent survey. Although many small and large medical waste incinerators in the state are closing, a substantial portion of the waste generated in Michigan is still burned. For instance, half of the hospital beds in the state are located in the Detroit area, where the commercial medical waste incinerator in Hamtramck dominates waste handling options. That facility has continued to have compliance problems, and is located in a low-income, predominantly African American neighborhood.

According to a recent Michigan inventory, medical waste incineration is the third largest source of anthropogenic mercury to the environment. Medical waste incinerators are also among the largest known sources of dioxin to the Great Lakes ecosystem, both from near and far sources. Again, the new MACT rules and citizen advocacy will result in the closing of many on-site incinerators. However, many will continue to send their waste off-site to be burned. Further, if mercury is in the waste stream, it can be released regardless of the disposal option chosen. The reduction in medical waste incineration will not necessarily result in a reduction in mercury emissions, particularly because alternative treatment technologies typically have far fewer controls, if any. Disposal of medical waste will remain a source of mercury and dioxin to the Great Lakes basin, even as the waste disposal landscape shifts.

Given the certainty that dioxin and mercury will continue to be generated by the health care sector, it is apparent that a materials-based approach has merit. In order to further reduce the generation and release of persistent, bioaccumulative toxic compounds from this industry sector, a materials-based pollution prevention approach is the necessary next step.

Our previous work with hospitals across the state, and our unique partnership with the Michigan Health and Hospital Association, has laid the foundation for the efforts proposed here. Due to our previous work and partnerships, Michigan hospitals, more than their colleagues elsewhere, understand the importance of their waste handling decisions, and are beginning to look 'upstream' to purchasing decisions. But hospitals are under extreme financial pressures and need assistance in identifying pollution prevention opportunities and cost-effective alternative products, services, and options.

Proposed Work Outcome:

This grant proposes to continue a unique and highly productive collaboration between the Ecology Center, the MHHA, and Detroiters Working for Environmental Justice, to reduce the volume and toxicity of the hospital waste stream in the state of Michigan. In the past year, the project has convened a pollution prevention task force comprised of hospitals throughout Michigan. The task force successfully expanded the state's pesticide collection sites to take mercury bearing medical

products; held a successful conference on hospital pollution prevention last year, attended by more than 90 key hospital personnel; served as an information clearinghouse for hospitals seeking to reduce their environmental impact; provided contacts with experts and resources to encourage pollution prevention; encouraged sign-on to the mercury-free pledge; and, compiled case studies and encouraged inter-hospital information sharing. In addition, the Ecology Center has worked with Professor Pat Eagan of the University of Wisconsin to develop a tool, based on design-for-environment principles, to help hospital purchasers reduce their institution's environmental impacts.

In the coming year, we propose to build upon our earlier work with hospitals and the MHHA to conduct the following activities:

Organize a state-or basin-wide seminar focusing on a materials approach to reducing the volume and toxicity of medical waste that will follow up on our successful medical waste conference of March, 1999. The target audience is hospital purchasers, waste managers and regional GPO representatives.

Work with individual hospitals to assess their current purchasing practices and to identify greener purchasing options, including mercury-free, vinyl-free and reduced packaging options.

Maintain and promote the Healthy Hospitals list serve, a state-wide list serve for Michigan hospital waste managers, which is used to improve networking and information sharing among interested Michigan hospital waste managers and purchasers.

Expand our pollution prevention efforts to include urban clinics, nursing homes, health departments and other health care centers.

Expand our mercury work by encouraging more hospitals and health care institutions to sign the mercury pledge, publicizing the new mercury collection sites around the state

Encourage hospitals to host mercury exchange programs in urban communities and for urban schools, with a priority on those without adequate resources to address the issue.

Target hospitals that incinerate their waste for the most intensive assistance in mercury and dioxin-precursor reduction initiatives, as well as assistance in investigating alternatives to incineration.

Compile and provide additional information and resources on alternative products and their efficacy for hospitals and clinics interested in adopting alternatives through MHHA web sites, publications, and other channels.

Distribute the University of Wisconsin hospital purchasing tool to hospital purchasers in Michigan.

The assistance will emphasize pollution prevention strategies, particularly product substitution, reduction in the volume and the toxicity of waste streams generated, and the use of non-burn destruction technologies for infectious waste where practical.

Project Milestones:	**Dates:**
Project Start	06/2000
Create steering committee for seminar	06/2000
Distribute purchasing tool	07/2000
Seminar for approx. 50-80 attendees	11/2000
Two mercury round-ups scheduled before	01/2001
	/
	/
Project End	05/2001

☒ Project Addresses Environmental Justice

If So, Description of How:

Michigan incinerators and other industrial sources are disproportionately located in communities of color and poor communities. A 1996 study by researchers from Wayne State and the University of Michigan found that race is the most important predictor of the location of pollution sources in the state, including incinerators. They also found that environmental pollution is associated with increased rates of adverse health effects, including the incidence of low birth weight babies. Many of Michigan's remaining on-site hospital waste incinerators are located in poorer communities and communities of color. Michigan's only commercial medical waste incinerator, located in Hamtramck, an enclave within Detroit's borders, is located in a low-income community of color and has had a history of very poor compliance. Furthermore, many of Michigan's waterways have fish consumption advisories, due to fish contamination with mercury and dioxin. Communities of color are disproportionately represented among subsistence fishers in Michigan, and therefore disproportionately impacted by the contamination of sportsfish.

☒ Project Addresses Education/Outreach

If So, Description of How:

Education and information dissemination are at the heart of this project. This project will educate hospital waste handlers and purchasers, local GPO representatives, regional representatives of national GPOs, hospital administrators and the public about medical waste issues and pollution prevention opportunities. Information will be disseminated through trade publications, the MHHA, the seminar, the list serve and meetings with individual hospitals.

Project Budget:

	Federal Share Requested ($)	Applicant's Share ($)
Personnel:	30,000	10,000
Fringe:	0	0
Travel:	2,500	0
Equipment:	0	0
Supplies:	2,000	2,000
Contracts:	17,000	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	51,500	12,000
Indirect Costs:	0	0
Total:	51,500	12,000
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Twenty percent of the project's funding will be provided by the applicant, through a grant from the Mitchell Kapr Foundation. The funds are in hand.

Description of Collaboration/Community Based Support:

The project will build upon previous collaborative efforts with the Michigan Health and Hospital Association, Detroiters Working for Environmental Justice, the National Wildlife Federatino, and dozens of hospitals throughout the state of Michigan.